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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,796	07/31/2006	Wolfgang Niem	3761	1250

7590 01/09/2008

Striker Striker & Stenby
103 East Neck Road
Huntington, NY 11743

EXAMINER	
BITAR, NANCY	

ART UNIT	PAPER NUMBER
2624	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/587,796	NIEM ET AL.	
	Examiner	Art Unit	
	Nancy Bitar	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 July 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6 and 8-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *31 July 2006* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7/31/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 5-12 are objected to because of the following informalities: In dependent claims 5-12 discloses the "method as defined by claim 1" whereas, the claim that they are dependent upon, claim 1 discloses a "security system "which is inconsistent. Appropriate correction is required.

Drawings

2. The drawings are objected to because figures 5-6 do not comply with 37 CFR 1.84(o) where suitable descriptive legends may be used subject to approval by Office, or may be required by the examiner where necessary for understanding of the drawing. They should contain as few words as possible

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-6, 8-12 are rejected under 35 U.S.C. 102 (b) as being anticipated by Okamoto ET al (US 5,548,659).

As to claim 1, Okamoto teaches a security system having a camera for taking pictures of objects, the security system (100) including at least one subsystem (101, 102), characterized in that the first subsystem (101) includes a first function module (1) with a light source whose brightness is controllable (figure 1, note that the change

detection unit 6 detects the changed regions in which the change of lightness deviates from the noise model , column 5, lines 5-11), a second function module (6) for generating a digital image sequence from pictures taken by the camera (3) (The image input unit 2 receives the images sequentially taken by the camera 1, and supplies the images to the difference calculation unit 3 and the noise model estimation unit 4 as the input images at appropriate time intervals. Column 3, lines 1-41), and a third function module (8) for deriving the noise variance as a function of the gray value from the digital image sequence (noise model estimation unit, 4, see column 3, lines 1-48).

As to claim 2, Okamoto teaches the security system as defined by claim 1, characterized in that the security system (100) includes a memory (9), in which the function values of the noise variance can be stored in memory as a function of the gray value (noise model estimation unit, column4, lines 4-7and a noise memory unit for memorizing the noise model estimated by the noise model estimation unit 4, figures 2-3)

As to claim 3, Okamoto teaches the security system as defined by claim 1, characterized in that the second subsystem (102) includes a function module (13) for comparing a gray value variance, derived from pictures taken by the camera, with a predeterminable threshold value (an average of a sum of the square of the smoothed normalized difference nd'.sub.p (x, y) for all the n successive images is calculated for each picture element and at the step ST17, the calculated square sum average of the smoothed normalized differences is compared with the predetermined threshold Th in order to obtain the binarized image mv in which the picture elements belonging to the

changed regions have the value 1, while the remaining picture elements have the value 0, column 5, lines 45-65, figure 4) .

As to claim 4, Okamoto teaches a method for operating a security system (100), including a camera for taking pictures of objects, characterized in that the method includes a first operating state (initializing phase) and a second operating state (operating phase)(figure 2 and figure 4) .

As to claim 5, Okamoto teaches the method as defined by claim 1, characterized in that in the first operating state of the security system (100), the noise variance is ascertained as a function of the gray value of an image sensor (4) located in the camera (see equation 1 and 2, figure 4 where di/E(di)=.alpha..times.i+.beta.+d(0, .sigma. , figure 2-3) and is stored in a memory (noise model memory unit, 5, figure 1).

As to claims 6 and 8, Okamoto teaches the method as defined by claim 1, characterized in that for ascertaining the noise variance as a function of the gray value, the camera (3) including the image sensor (4) is subjected to the radiation of a light source (see figure note that the noise model estimation unit 4 estimates appropriate noise model parameters by substituting the input image supplied from the image input unit 2 and the difference image and the average difference supplied from the difference calculation unit 3 into a prescribed noise model representing a light variation of the static image due to the lighting conditions, column 3, lines 42-55).

As to claim 9, Okamoto teaches the method as defined by claim 1, characterized in that in the second operating state of the security system (100), images of a region to

be secured are taken by the camera (3), and these images are examined for the presence of moving objects in the region to be secured (detect a movement of a target moving object at high precision, without being affected by the variation of the image taking environmental condition such as lighting condition, column 6, lines 21-28,).

As to claim 10, Okamoto teaches the method as defined by claim 1, characterized in that from chronologically successive pictures of the region to be secured, the gray value variance for at least selected pixels is ascertained; that if a deviation is found, a comparison with a threshold value is made, and this threshold value is predetermined variably as a function of the gray value (the picture elements having the value 0 in the binarized image mv are those which are regarded as belonging to the static regions according to the noise model of the equation (1) at the desired confidence level, while the picture elements having the value 1 in the binarized image mv are those which are regarded as not belonging to the static regions according to the noise model of the equation (1) at the desired confidence level, column 5, lines 49- column 6, lines 1-20)

As to claim 11 Okamoto teaches the method as defined by claim 1, characterized in that the variable threshold value is read out from values stored in the memory (9) (note that the operation in this change detection unit 6 is carried out according to the flow chart of FIG. 4, column 5, lines 5-65).

As to claim 12, Okamoto teaches the method as defined by claim 1, characterized in that the dependency of the noise variance on the gray value is

ascertained for different parameters of the camera (3) and is stored as a function value in the memory device (9) (specifying a ratio of a difference in lightness at each picture element of each difference image with respect to an average difference in lightness over an entire imaging view field of each difference image as a function of lightness at each picture element in each input image expressed in terms of the noise model parameters, figure 2).

Allowable Subject Matter

5. Claim 8 is rejected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nancy Bitar whose telephone number is 571-270-1041. The examiner can normally be reached on Mon-Fri (7:30a.m. to 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 571-272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nancy Bitar

01/07/2008

ANDREW W. JOHNS
PRIMARY EXAMINER